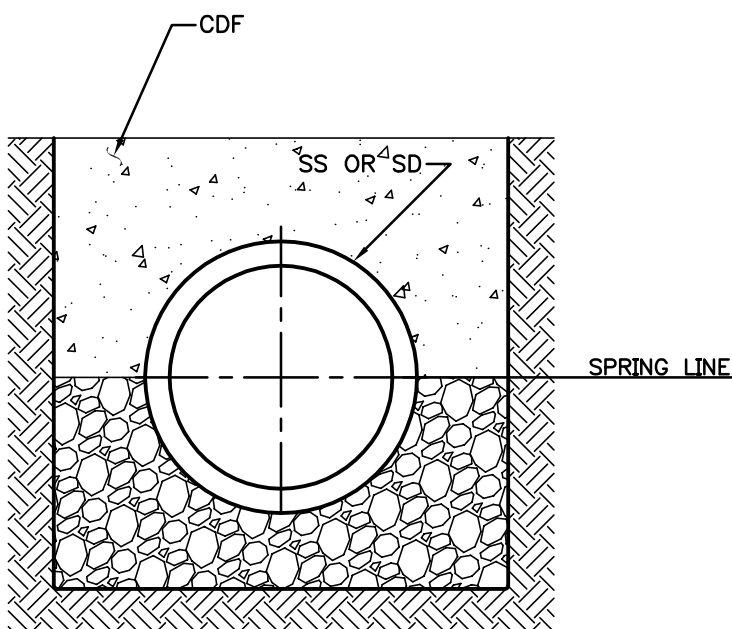


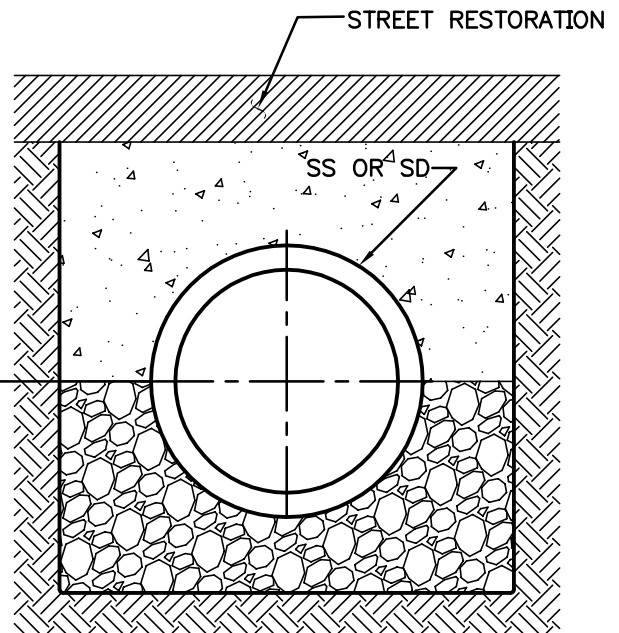
STEP 1

CONTRACTOR TO COMPLETE BEDDING
TO SPRING LINE AND COORDINATE
WITH DPD INSPECTION.



STEP 2

CONTRACTOR TO COORDINATE WITH SDOT
FOR CDF BACKFILL WITHIN TRAVELLED
ROADWAY.



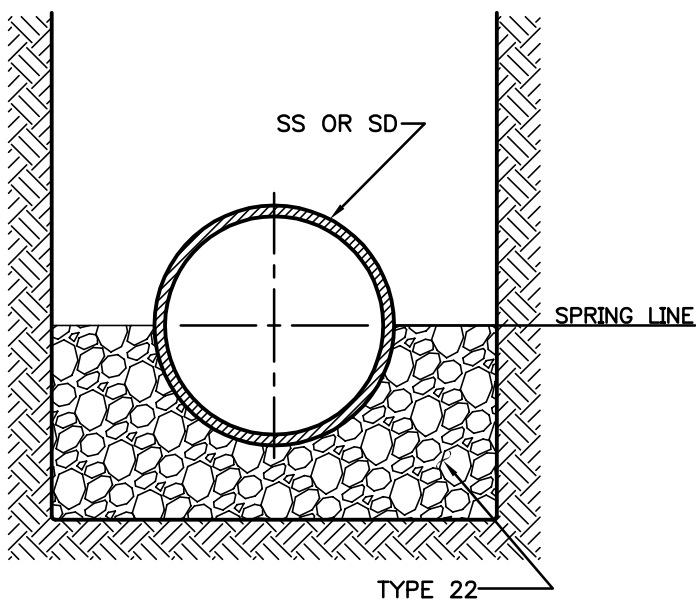
STEP 3

SDOT TO COMPLETE STREET
RESTORATION.

SCALE: NTS

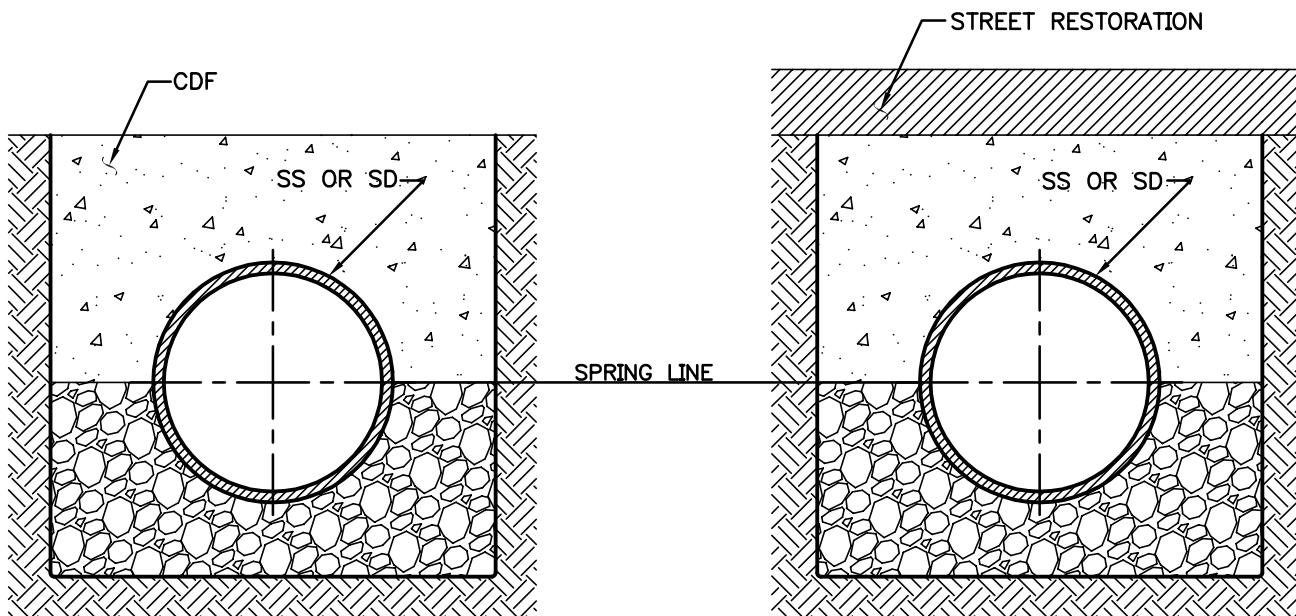
1. CL "B" BEDDING
2. CONCRETE PIPE: ASTM C14 CL3 <12"
ASTM C76 CL IV 12" TO 15"
ASTM C76 CL III WALL B 18" OR >





STEP 1

CONTRACTOR TO COMPLETE BEDDING TO SPRING LINE AND COORDINATE WITH DPD FOR INSPECTION.



STEP 2

CONTRACTOR TO COORDINATE WITH SDOT FOR CDF BACKFILL WITHIN TRAVELLED ROADWAY.

STEP 3

SDOT TO COMPLETE STREET RESTORATION.

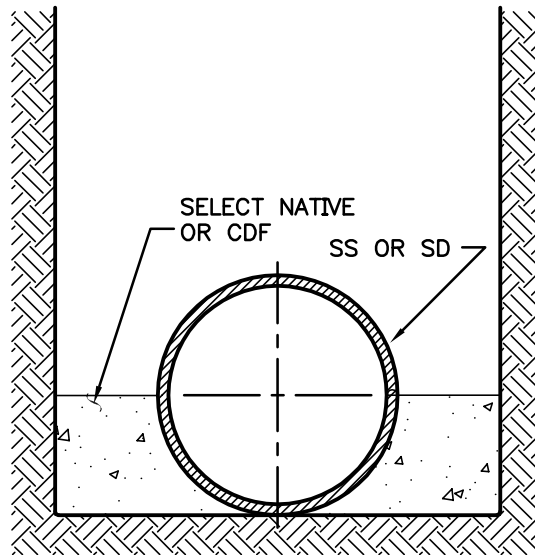
SCALE: NTS



City of Seattle

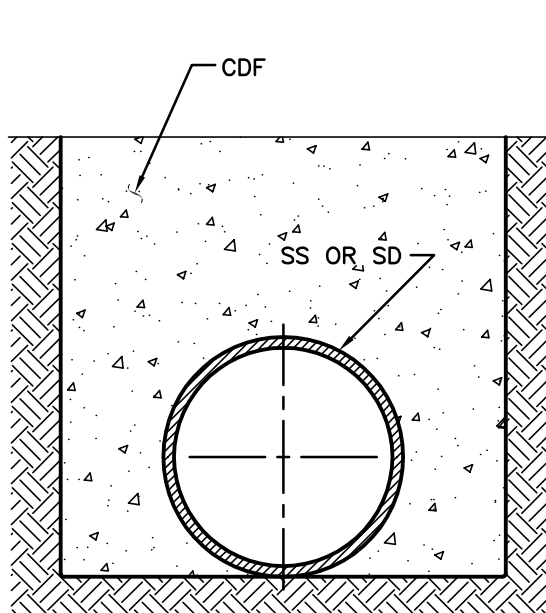
PAGE 30

**FLEXIBLE PIPE BEDDING &
BACKFILL UNDER PAVEMENT
LOCATED IN A PUBLIC PLACE**



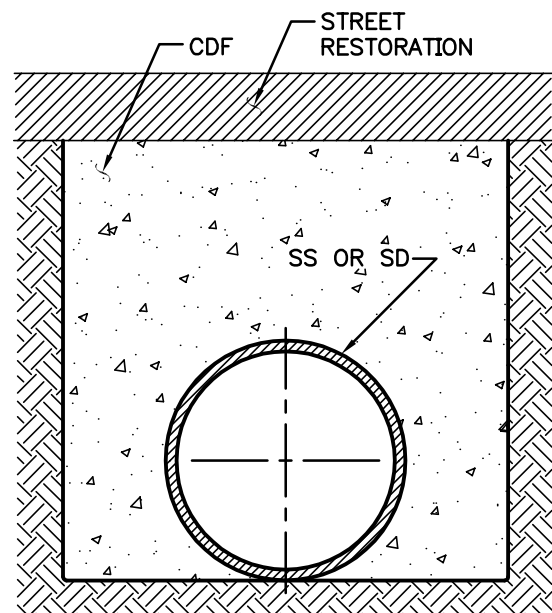
STEP 1

CONTRACTOR TO COMPLETE
BEDDING TO SPRING LINE
AND COORDINATE WITH DPD
FOR INSPECTION.



STEP 2

CONTRACTOR TO COORDINATE
WITH SDOT FOR CDF BACKFILL
WITHIN TRAVELLED ROADWAY.



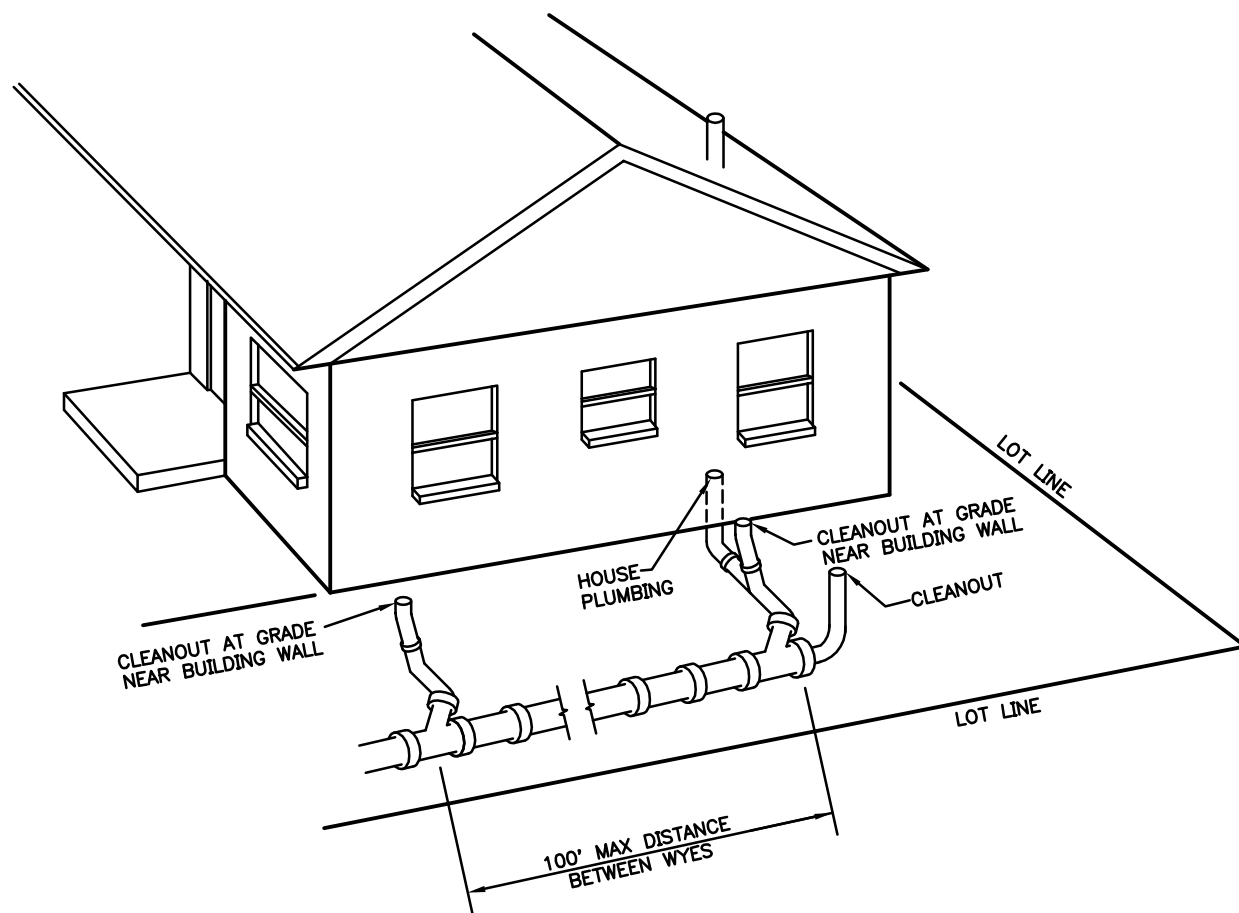
STEP 3

SDOT TO COMPLETE STREET
RESTORATION.

SCALE: NTS

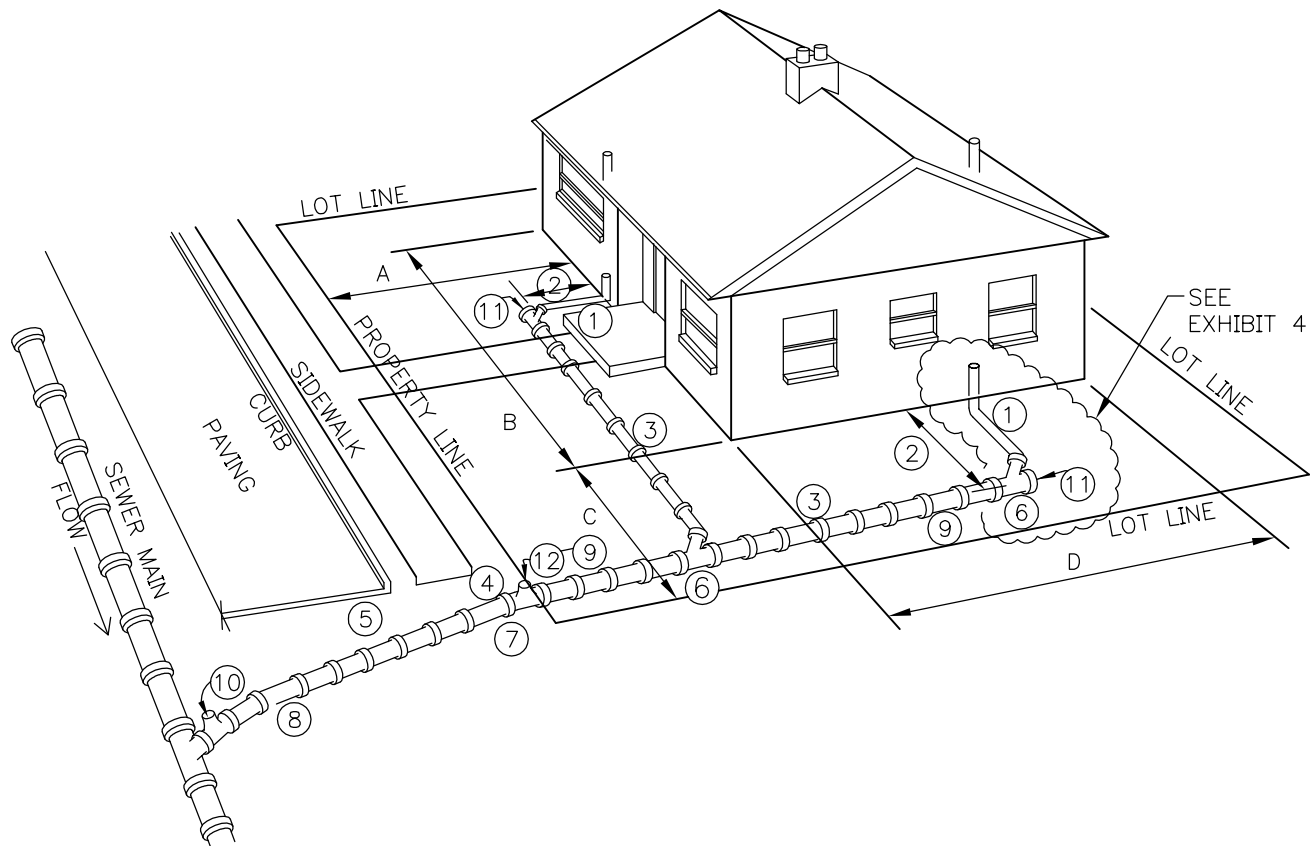
1. CLASS "D" BEDDING
2. DIP CLASS 50 MIN.





NTS



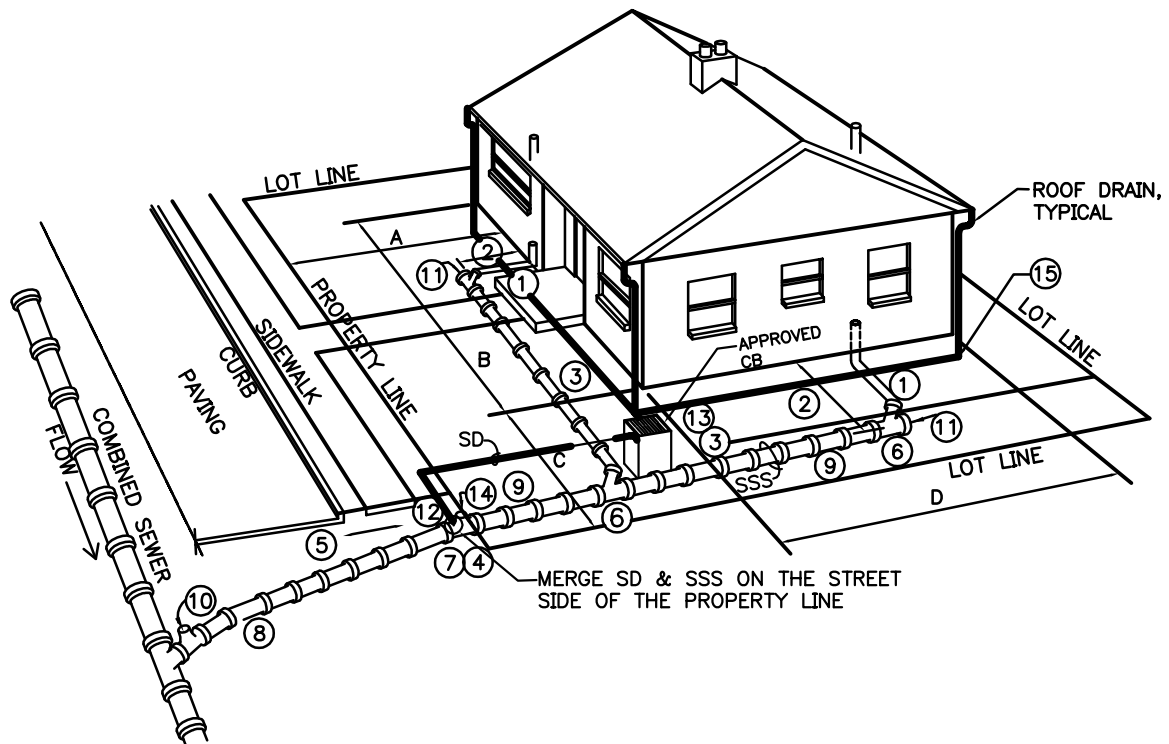


NOTES:

1. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWNSPOUTS OR STORM DRAINAGE MAY BE CONNECTED, EXCEPT TO A SEPARATE STORM DRAINAGE SYSTEM.
2. 2'-6" MIN DISTANCE FROM HOUSE, EXCEPT FOR SOIL PIPE CONNECTION.
3. 1'-6" MIN COVER OF PIPE.
4. 2'-6" MIN COVER AT PROPERTY LINE.
5. 5'-0" MIN COVER AT CURB LINE.
6. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH BENDS OR WYES.
7. STANDARD 4" TO 6" INCREASER.
8. 6" SEWER PIPE: MIN SIZE IN STREET, AND ELSEWHERE AS DIRECTED. $\frac{1}{8}$ " MIN GRADE, 100% MAX.
9. 4" SEWER PIPE: MIN SIZE ON PROPERTY. 2% MIN GRADE, 100% (45°) MAX.
10. TEST "T" WITH PLUG.
11. REMOVABLE PLUG.
12. TEST "T" WITH PLUG AT UPSTREAM SIDE OF SIDE SEWER AS REQUIRED.
13. ALL CONSTRUCTION REQUIRES A PERMIT AND PAYMENT OF FEE. COMPLETE LEGAL DESCRIPTIONS OF PROPERTY AND DIMENSIONS A, B, C AND D THAT SHOW THE SIZE AND LOCATION OF THE HOUSE ARE REQUIRED FOR ISSUANCE OF THE PERMIT.
14. CONSTRUCTION IN STREET MUST BE DONE BY A REGISTERED SIDE SEWER CONTRACTOR.
15. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SIDE SEWER ORDINANCES.
16. ORDINANCE 97016 APPLIES TO INSTALLATION OF SIDE SEWER.

NTS



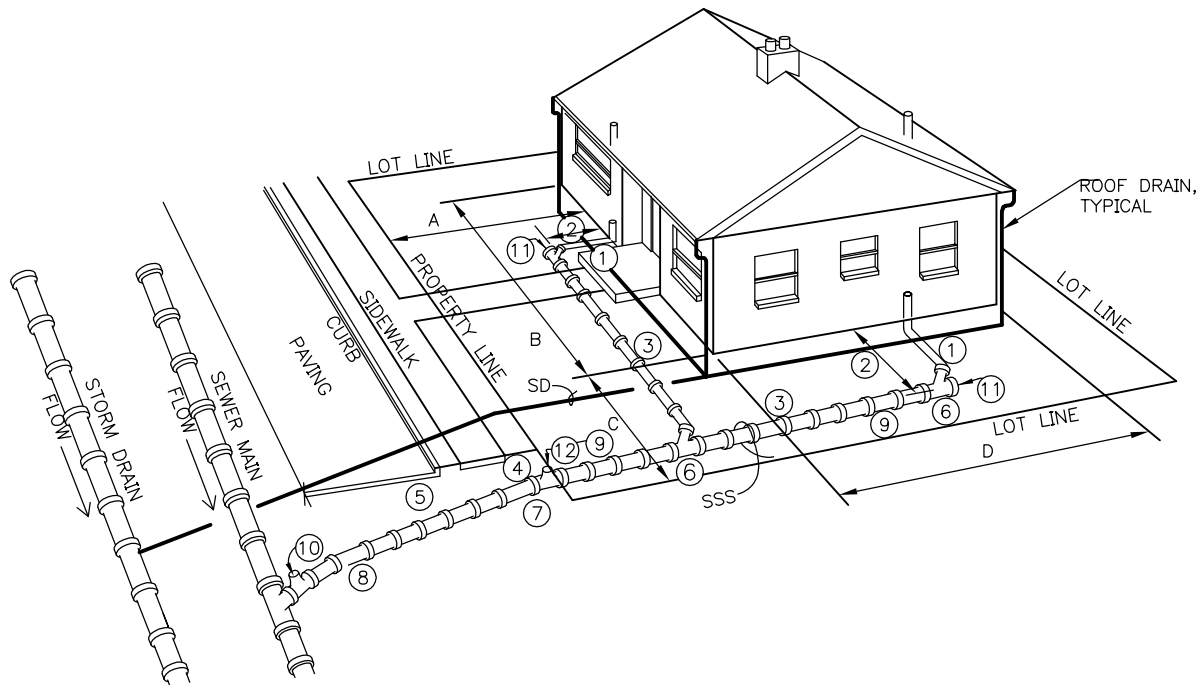


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9. 4" SEWER PIPE: MIN SIZE ON PROPERTY. $\frac{1}{4}$ " MIN GRADE, 100% (45°) MAX.
10. TEST "T" WITH PLUG.
11. REMOVABLE PLUG.
12. CONNECTION TO SIDE SEWER REQUIRES SIDE SEWER TO BE 6".
13. TYPE 50 CATCH BASIN OR P-TRAP AT EACH DOWNSPOUT.
14. TEST "T" WITH PLUG AT UPSTREAM SIDE OF SIDE SEWER AS REQUIRED.
15. P-TRAP AT ALL DOWNSPOUTS IF CB IS NOT USED.
16. ALL CONSTRUCTION REQUIRES A PERMIT AND PAYMENT OF FEE. COMPLETE LEGAL DESCRIPTIONS OF PROPERTY AND DIMENSIONS A, B, C AND D THAT SHOW THE SIZE AND LOCATION OF THE HOUSE ARE REQUIRED FOR ISSUANCE OF THE PERMIT.
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NTS



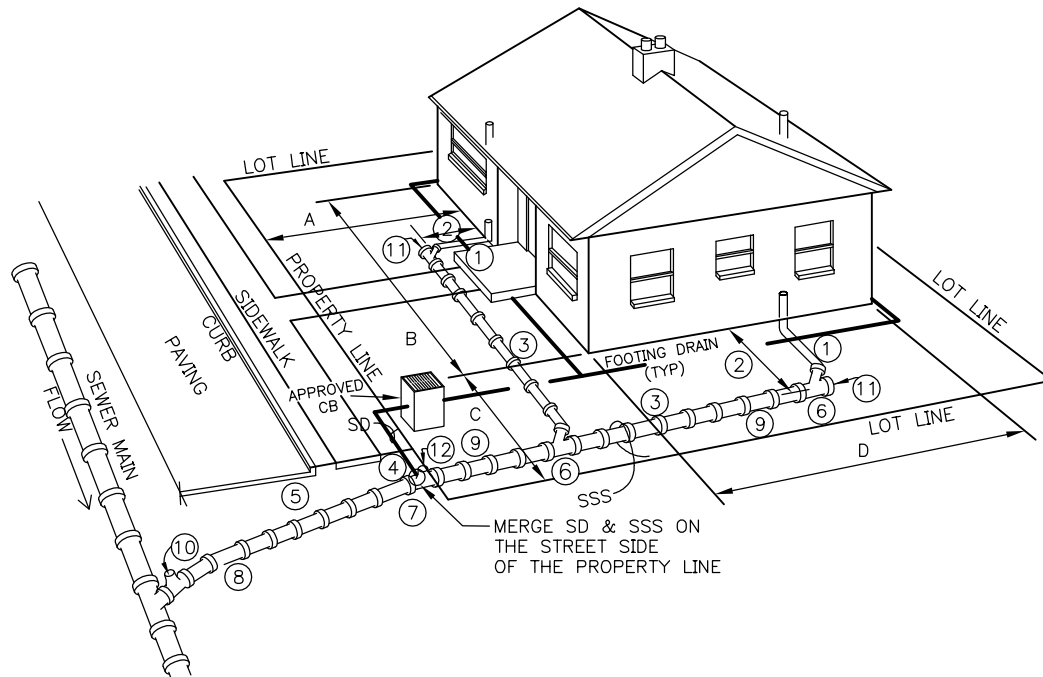


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NTS



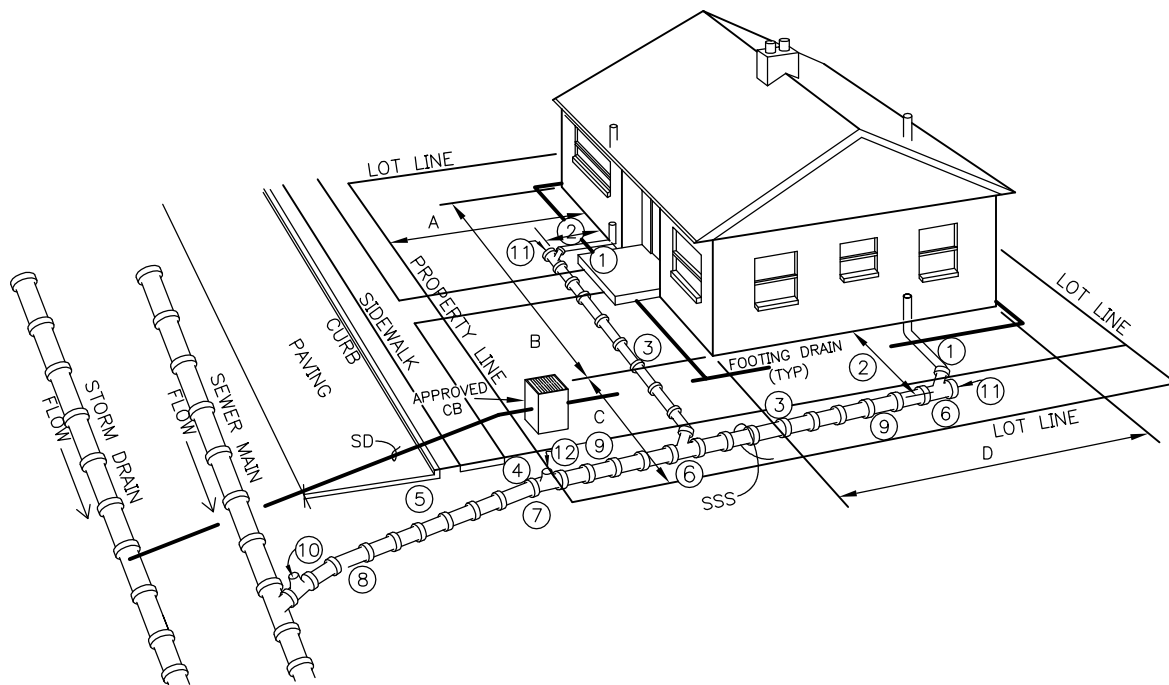


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NTS

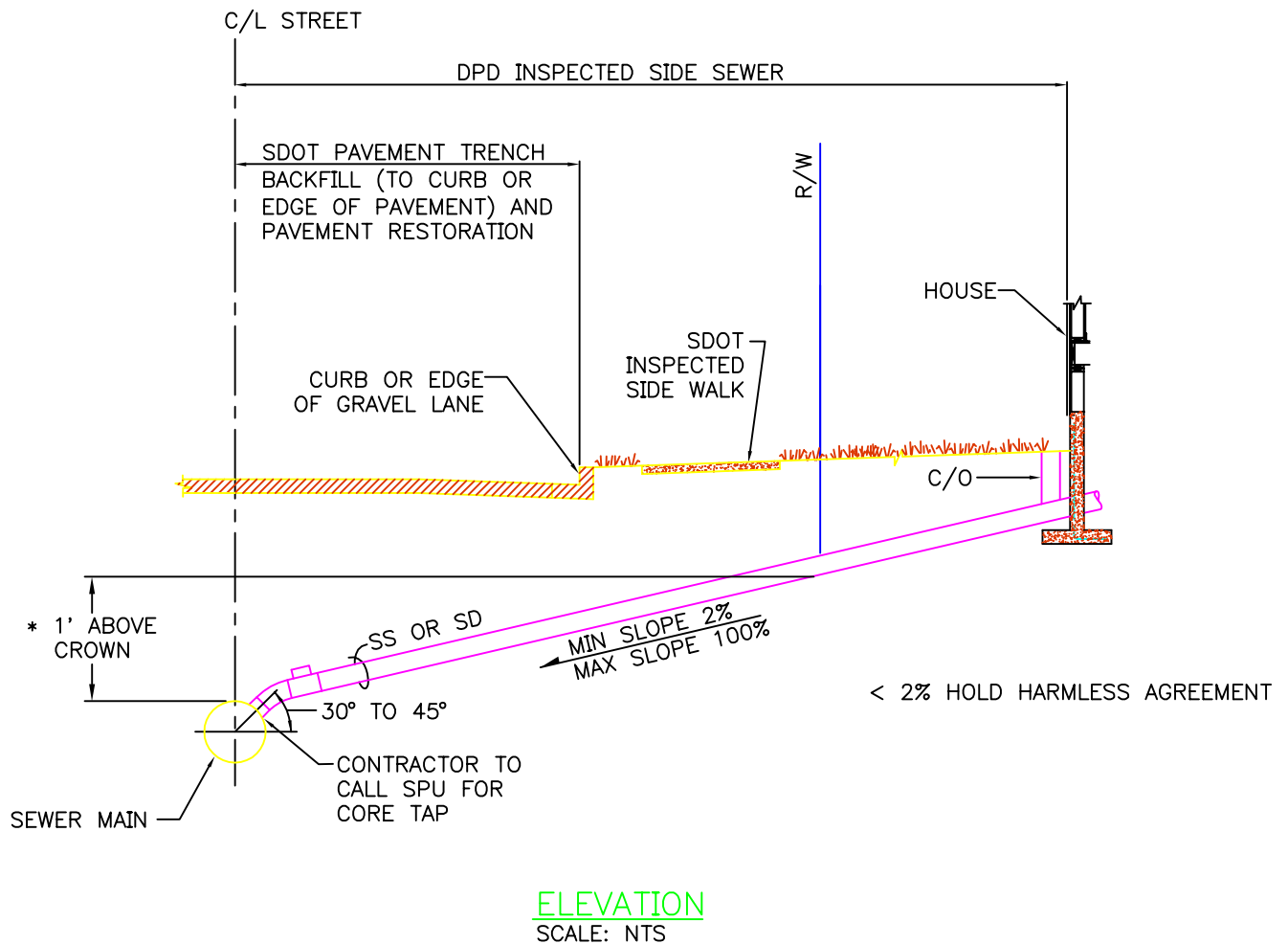




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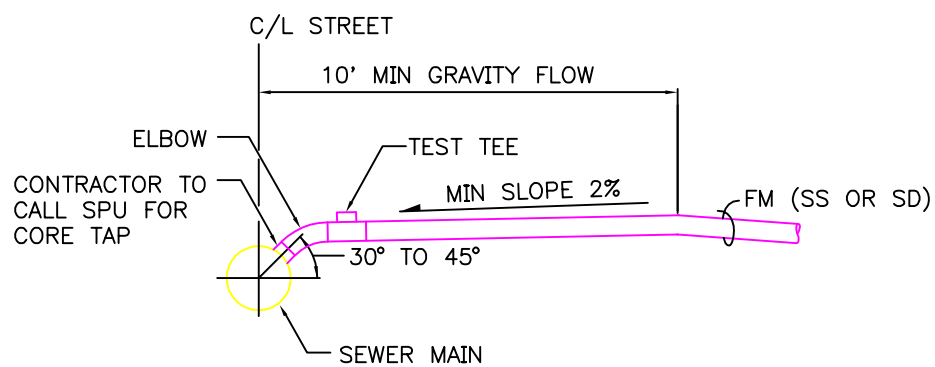
NTS



NOTE:
USE OF EXISTING WYES MAY BE APPROVED
DEPENDING ON WYE CONDITION (MATCH NOMINAL
SIZE ONLY).

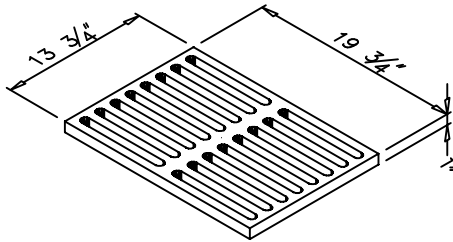
- * 1' ABOVE CROWN IF FEASIBLE.
BACKFLOW VALVE REQUIRED IF
UNABLE TO PROVIDE ELEVATION
DIFFERENCE.





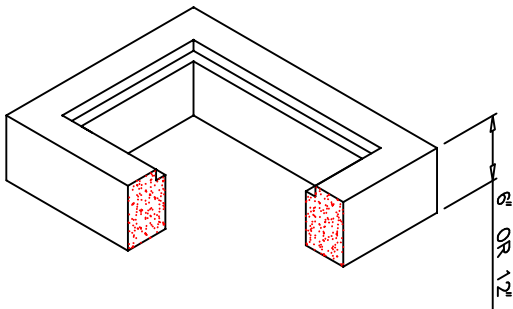
ELEVATION
SCALE: NTS





Top Unit

AVAILABLE WITH FRAME CAST INTO 6" TO 12" RISER TO ACCEPT GRATE OR WITH GRATE SET DIRECTLY INTO EXTENSION.

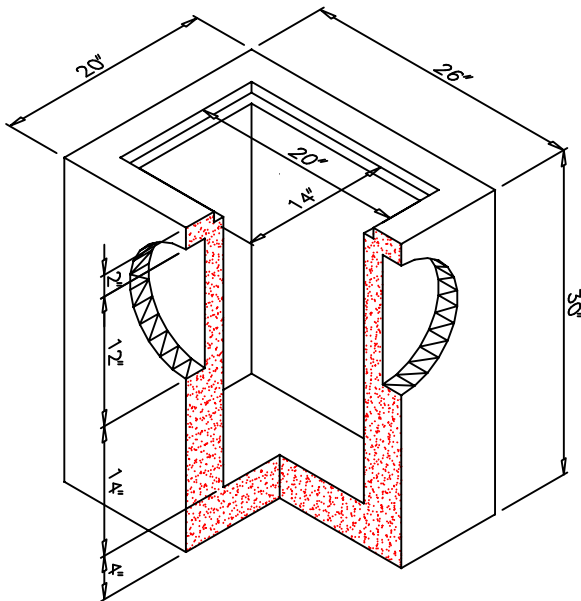


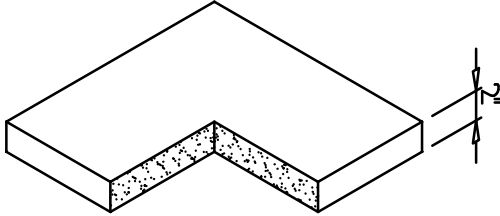
Base Section

KNOCKOUTS ARE PROVIDED FOR 8" PIPE ON FOUR SIDES.

BASE IS DESIGNED FOR USING THE GRATE WITH OR WITHOUT THE FRAME.

ALL CONCRETE IS 4,000 PSI MIN.



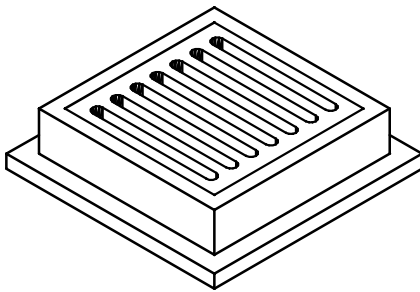


Top Unit

A SOLID CONCRETE COVER FOR USE AS A DISTRIBUTE BOX.

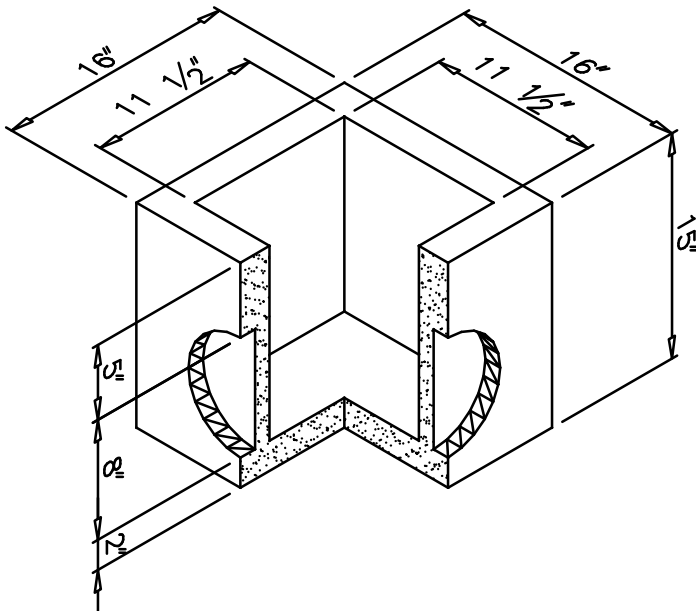
MATERIAL FRAME AND GRATE ARE DESIGNED FOR USE IN A SMALL CATCH BASIN WHEREVER A LIGHT GRATE IS NEEDED.

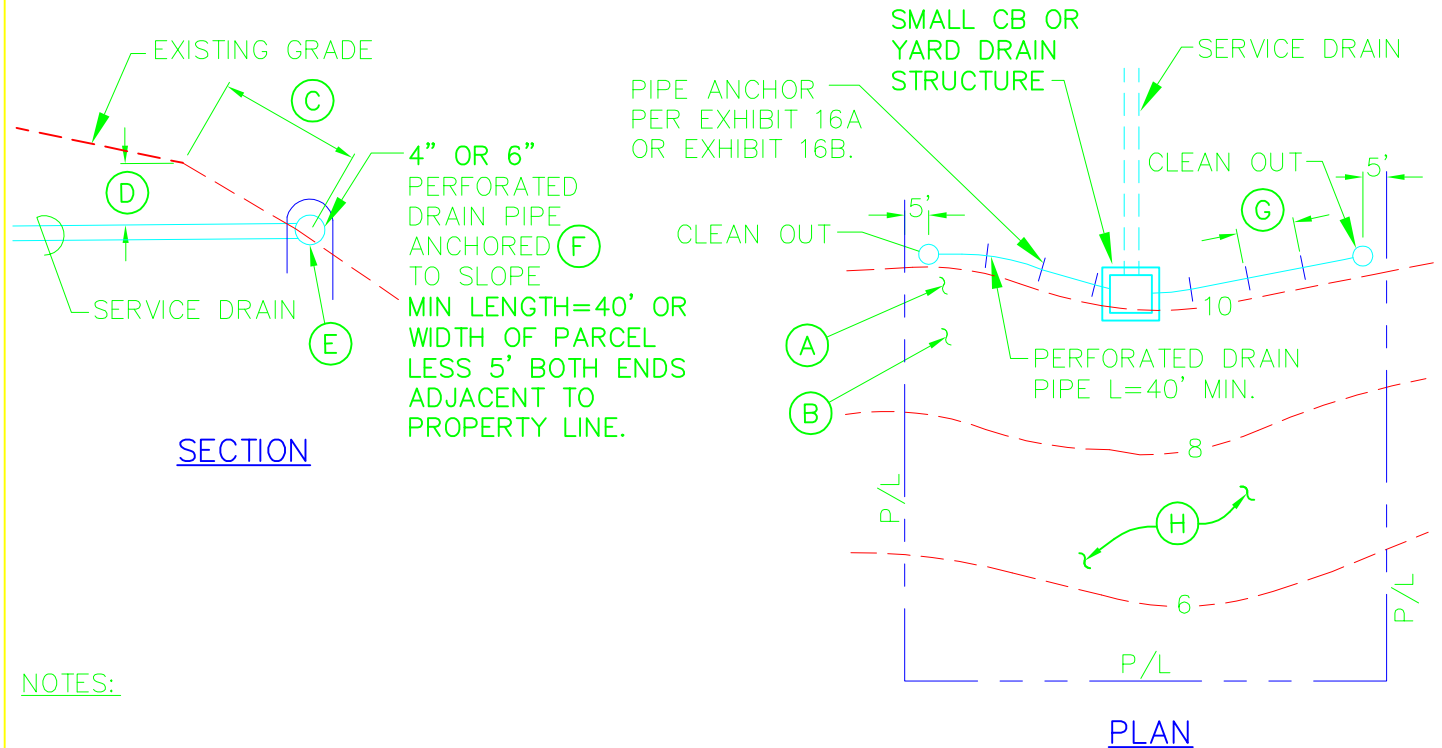
NON TRAFFIC RATED.



Base Section

FOUR KNOCKOUT HOLES ARE PROVIDED ON EACH SIDE TO ACCOMMODATE 4" DIAMETER PIPE.

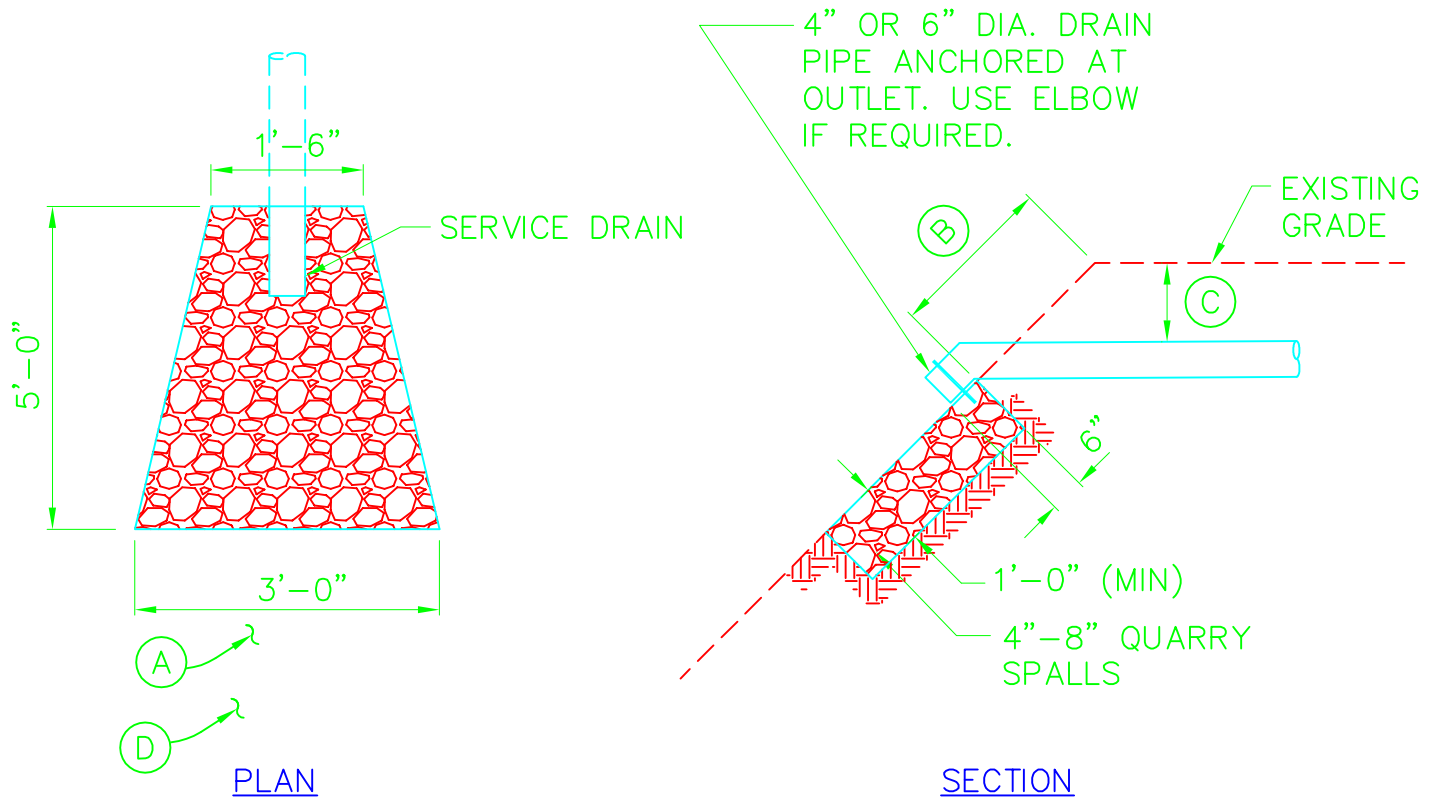




NOTES:

- (A) INSTALL FILTER ROLL OR WADDLE FOR DRAINAGE CONTROL.
- (B) PROTECT OR INSTALL NATIVE VEGETATION CONDUCTIVE TO STEEP SLOPES. WIDTH=10' MIN. ALONG ENTIRE LENGTH OF PIPE OR AS REQUIRED BY APPROVED BUILDING PERMIT PLANS.
- (C) SECURE PERFORATED DRAIN PIPE AS CLOSE TO TOP OF SLOPE AS POSSIBLE.
- (D) 18" MIN. UNLESS DIP OR PVC SCHEDULE 40 USED.
- (E) PLACE LINE OF LOWEST PERFORATIONS 2" ABOVE GROUND.
- (F) PLACE ALONG CONTOUR AT 0.5% SLOPE DOWN FROM CB/YARD DRAIN.
- (G) PLACE ANCHORS @ 5' O.C. OR AT EACH BEND, WHICHEVER IS LESS.
- (H) MAINTAIN EXISTING LANDSCAPE.

THIS DRAINAGE OUTLET DEVICE SHALL NOT BE USED IN KNOWN LANDSLIDE (ECA8) OR POTENTIALLY SLIDE (ECA 2) AREAS UNLESS ON SITE DETENTION HAS BEEN INSTALLED INCLUDING DETENTION FOR A SITE HAVING LESS THAN 2,000 SF OF IMPERVIOUS AREA THAT WANTS TO DISCHARGE DRAINAGE ONTO THE EXISTING SLOPE.



NOTES:

- (A) PROTECT OR INSTALL NATIVE VEGETATION CONDUCIVE TO STEEP SLOPES. WIDTH=10' MIN. ALONG ENTIRE LENGTH OF PIPE OR AS REQUIRED BY APPROVED BUILDING PERMIT PLANS.
- (B) SECURE PERFORATED DRAIN PIPE AS CLOSE TO TOP OF SLOPE AS POSSIBLE.
- (C) 18" MIN. UNLESS DIP OR PVC SCHEDULE 40 USED.
- (D) MAINTAIN EXISTING LANDSCAPE.

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Technical drawing of a rectangular box with a cylindrical protrusion on its right side. A horizontal handle is attached to the front face of the box, passing through the center of the cylinder. The handle has a small rectangular detail on its left end. Dimension lines indicate the overall width of the box is 1'-0" and the height of the box is 1'-0".

DEFORMED 3/8" STEEL ROD
(GALV OR ALUMINUM)
LENGTH FIT

WIRE ROPE
CLIP (GALV)

CINCH
ANCHOR

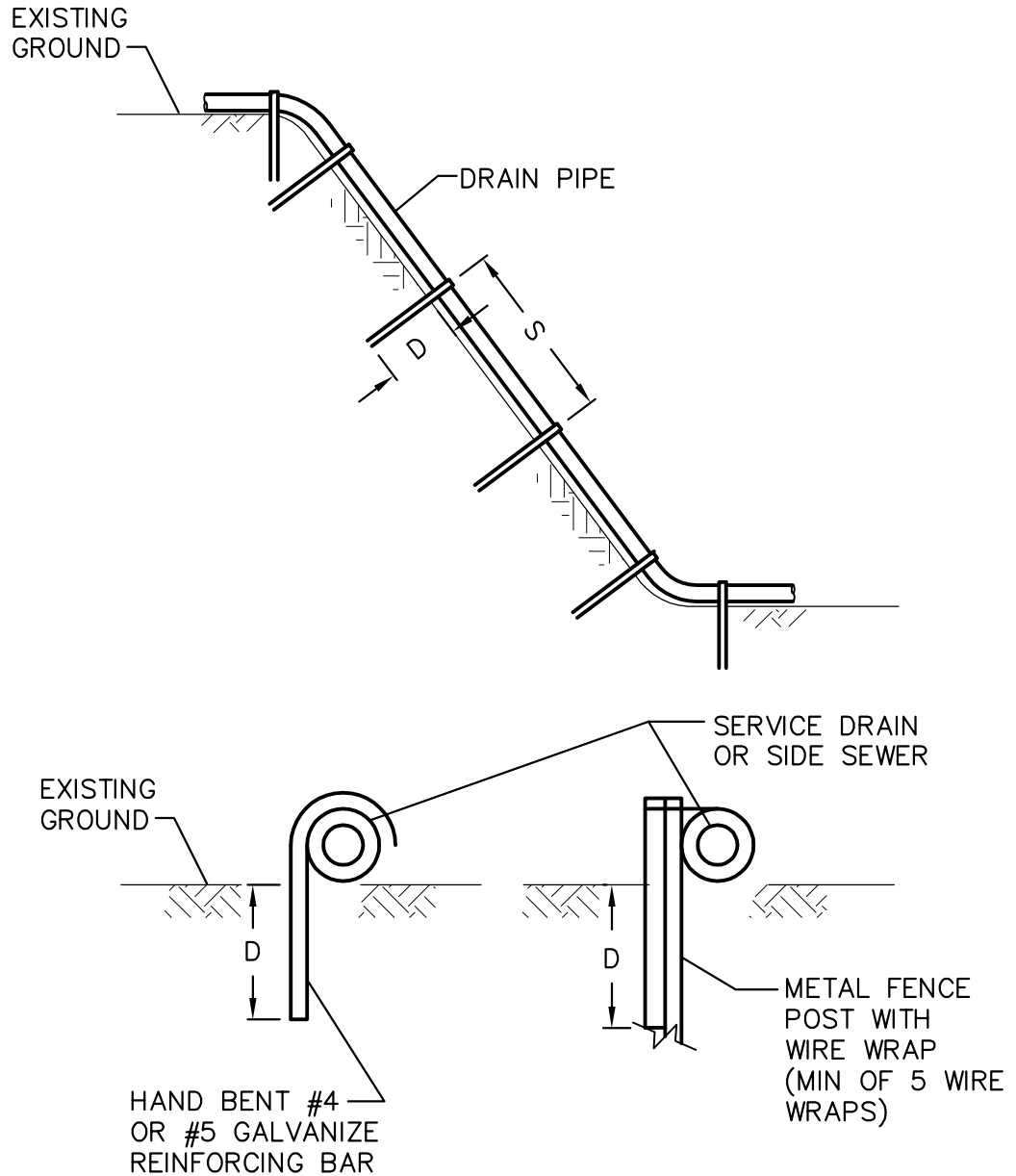
SIDE SEWER

1'-0"

CEMENT CONCRETE

TYPE II

TYPE I AND TYPE II ANCHORS SHALL
BE USED WHERE THERE IS COMPETENT
SOILS FOR ANCHORAGE.

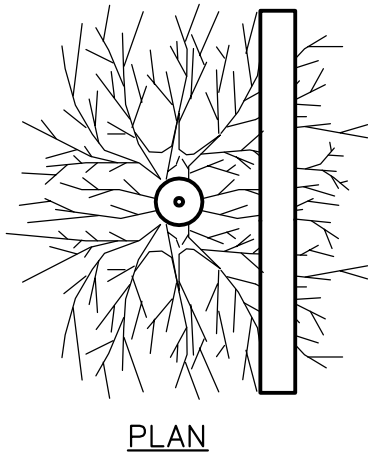
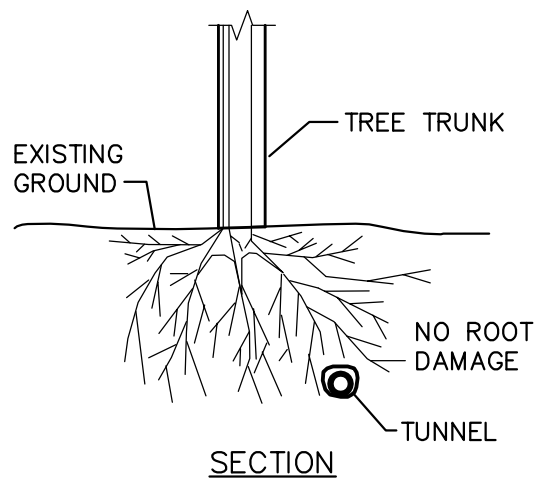
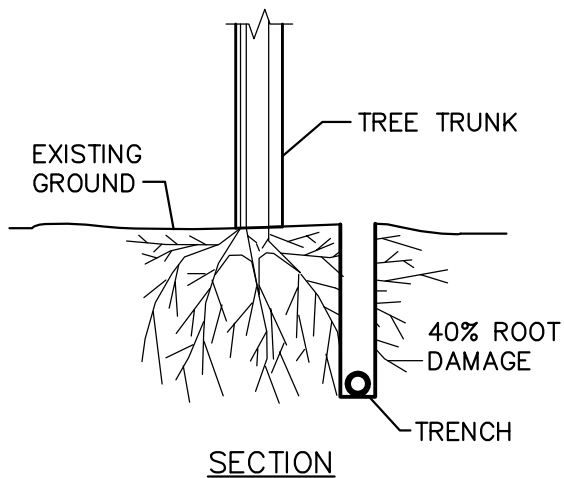


TYPE III

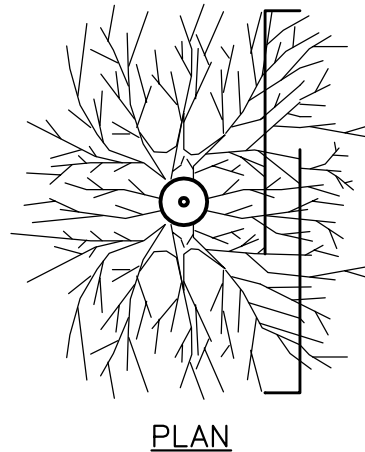
NOTES:

- MINIMUM RECOMMENDED CENTER-TO-CENTER STAKE SPACING, $S=10$ FEET.
- MINIMUM RECOMMENDED DEPTH OF STAKE OR FENCE POST PENETRATION INTO SLOPE, $D=6$ FEET.
- WHEN INSTALLING TIGHTLINE PIPE MAKE SURE PIPE IS PULLED "TAUT" ON THE SLOPE FACE BEFORE INSTALLING STAKES AND PINNING PIPE TO SLOPE FACE.





TRENCH



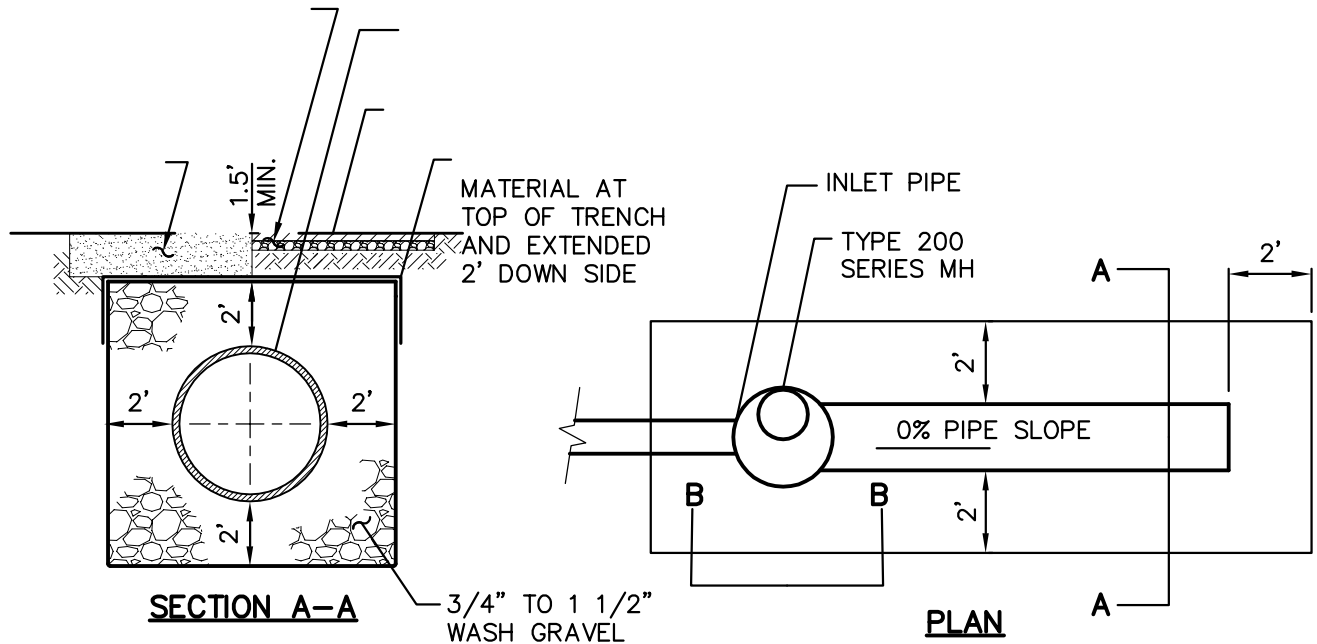
TUNNEL

IF A TREE'S DIAMETER IS:	THE DISTANCE OF TUNNELING FROM ANY SIDE OF THE TREE SHOULD BE AT LEAST:
6 TO 9 INCHES	5 FEET
10 TO 14 INCHES	10 FEET
15 TO 19 INCHES	12 FEET
OVER 19 INCHES	15 FEET

NOTE:

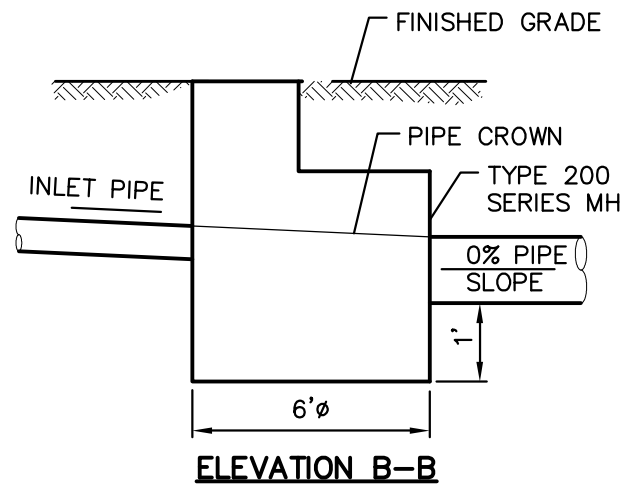
FOR TREES UNDER 6 INCHES IN DIAMETER, TUNNELING SHOULD BEGIN AT LEAST 5 FEET FROM THE TREE, OR NO CLOSER THAN THE ROOT BALL IF NEWLY PLANTED. ANOTHER OPTION FOR SMALL TREES IS TO USE A TREE SPADE TO TEMPORARILY MOVE TREES OUT OF THE WAY OF UNDERGROUND WORK.

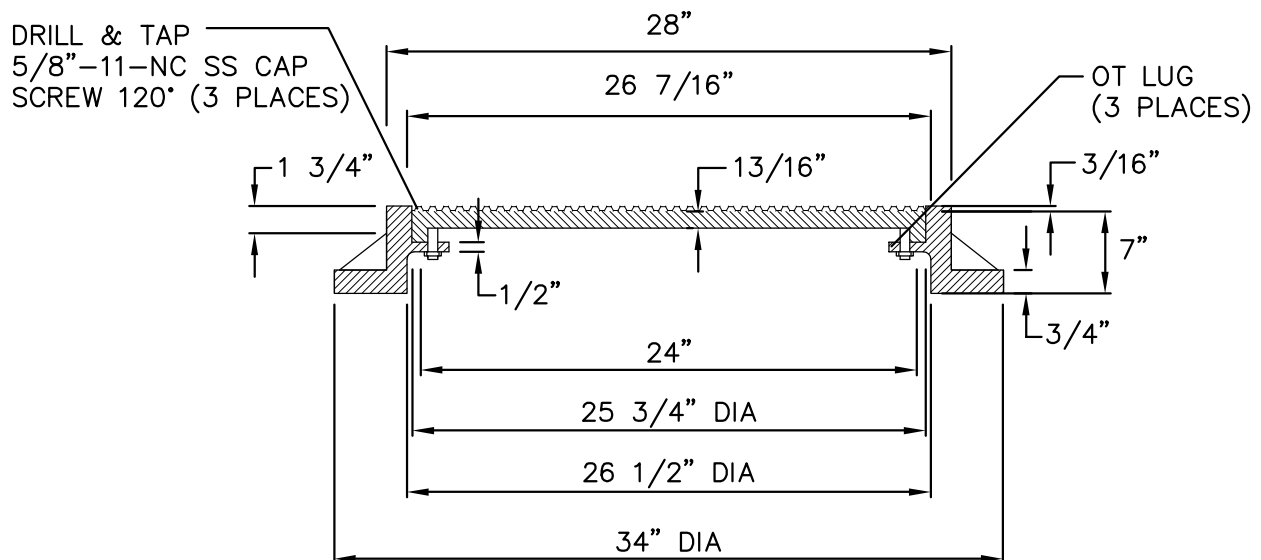
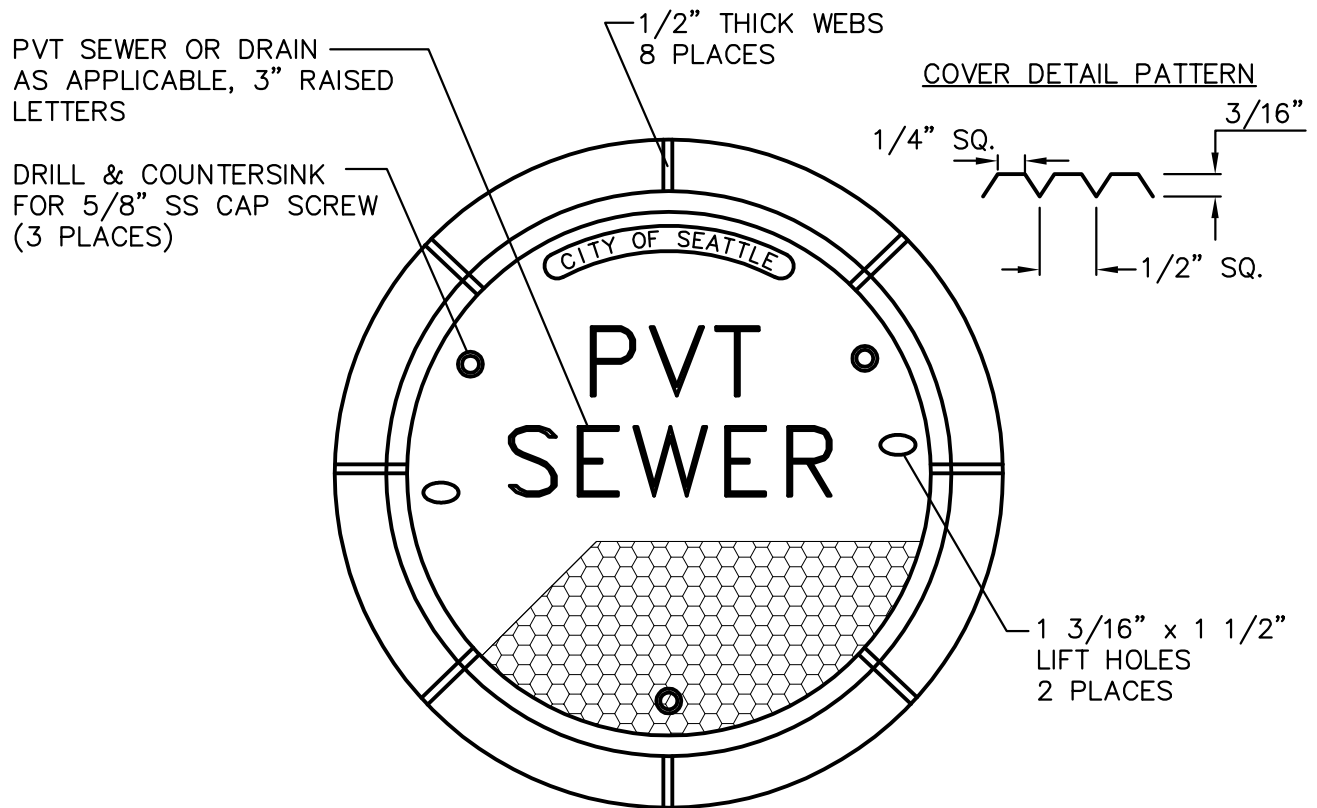




NOTES:

1. SIZE REQUIREMENTS AND PIPE MATERIALS FOR STANDARD PLAN DETENTION SYSTEM PER TABLE 6, CHAPTER 2, DR-26-2000 FLOW CONTROL TECHNICAL REQUIREMENTS.
2. ADDITIONAL MH ACCESS TO DETENTION PIPE REQUIRED IF LENGTH IS OVER 100 LINEAL FEET.





MATERIALS

FRAME: CAST IRON ASTM A48 CL. 30

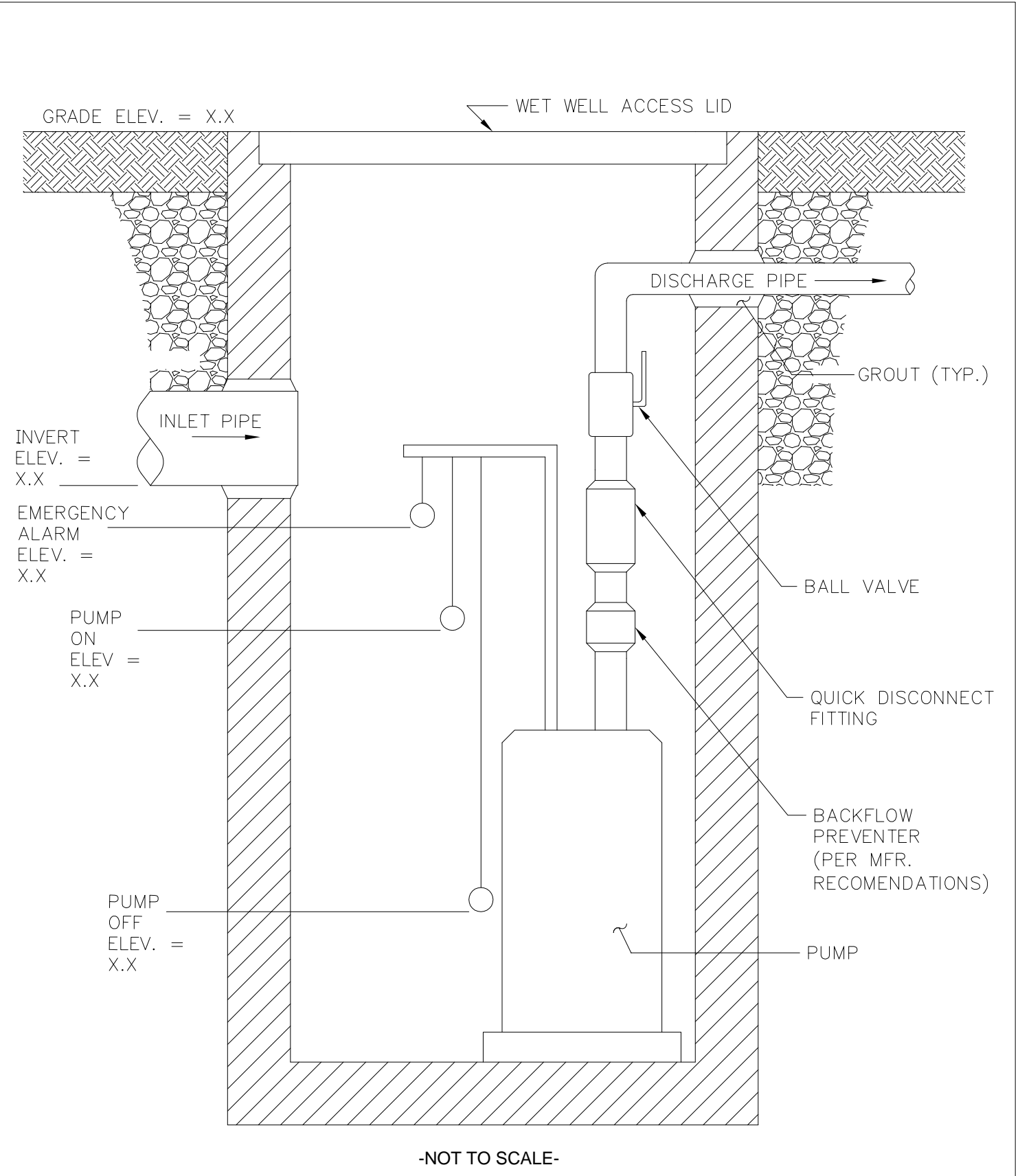
COVER: DUCTILE IRON ASTM A536 CL 80-55-06

APPROX WT: RING-230 LBS, COVER-140 LBS

RATING: H-20

USE OLYMPIC FOUNDRY INC. RING AND COVER OR EQUIVALENT





NOTE: PUMP SHALL BE INSTALLED IN COMPLIANCE WITH SEATTLE ELECTRICAL CODE.